BIOSOLIDS RECYCLING

King County Department of Natural Resources and Parks Wastewater Treatment Division Resource Recovery

Where do biosolids go?

For over 35 years King County has been turning 100% of our wastewater solids into a natural resource called biosolids. This valuable soil amendment is used to build healthy soils, fertilize crops and other plants, and restore degraded terrain. Currently, King County's biosolids are used to enhance soils of agricultural land in eastern Washington and forests in western Washington. Some of our biosolids are composted and used as a soil amendment in urban gardens and landscapes. We are continually exploring and evaluating new opportunities for use of this valuable resource.

REDUCING OUR CARBON FOOTPRINT WITH BIOSOLIDS

Some gases can absorb energy from the earth's surface and trap that heat energy in the atmosphere. In order of concern, these "greenhouse gases" are:

- 1. Nitrous oxide (N2O)
- 2. Methane (CH4)
- 3. Carbon dioxide (CO2)

We want to manage our biosolids without creating these gases that could lead to climate change.

To check how well we're doing, we use carbon accounting to compare the carbon credits and debits of our activities.

Credits:

- Using biosolids instead of synthetic fertilizer
- Accumulating carbon in the soil

- Using diesel fuel to transport or land-apply biosolids
- Releasing nitrous oxide or methane

We're on the right track! King County's biosolids projects store far more carbon than they release, according to calculations by university scientists. We are continuing field research and measurements to help us refine our calculations. We are

> also exploring uses-such as reclamation of degraded soils—that can store large amounts of

> > carbon.

A tool to restore severely degraded

recovery

A source

of bioenergy

through methane

Biosolids...creating another resource from wastewater

Gardens & Landscaping **Forests** Wheat Other Crops

> An amendment to improve soil A natural and reduce fertilizer to erosion increase plant health and growth

An option for reducing greenhouse gases and storing carbon

BENEFITS

206-684-1280 http: kingcounty.gov/biosolids/